

REMARKS

The Attorney for the Applicants' wishes to thank the Examiner for the telephone interview held on March 28, 2007. During the interview, the Examiner indicated that the application would be allowable by amending the claims to make it clear that the reflowable underfill adhesive applied on the active surface of the flip chip reflows when the solder balls are reflowed during mounting onto a substrate.

In response thereto, the applicants have amended the claims to make it clear that the uniform layer of reflowable material (i) is initially partially cured when applied to the flip chip; (ii) reflows at the temperature used to reflow the solder balls during the mounting of the flip chip to a substrate; and (iii) further cures after flowing into the gap between the flip chip and the substrate. A review of the Kinsman reference makes it clear that none of these claimed features are taught.

Paragraph [0026] of Kinsman specifically states that the encapsulant material 30 forms a "hermetic seal" over the integrated circuitry 18 on the active surface 14 of the substrate. Since the stated purpose of the encapsulant 30 is to form a hermetic seal over the circuitry, Kinsman actually teaches away from the present invention. If the material 30 of Kinsman were to reflow like the underfill material of the present invention, there is a strong possibility that the hermetic seal would be broken, exposing the underlying circuitry 18. Since Kinsman specifically teaches the formation of a hermetic seal, it is proper to conclude that the seal material is not partially cured nor does it reflow.

Therefore, the encapsulant material 30 of Kinsman: (i) is NOT partially cured when initially applied to the substrate; (ii) does NOT reflow at the temperature required to reflow the solder balls when the flip chip is mounted onto the substrate; and (iii) does not reflow into the gap between the flip chip and the substrate and then further cure.

The Applicants' believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner.

Respectfully submitted,
BEYER WEAVER LLP

/James W. Rose/
James W. Rose
Reg. No. 34,239

P.O. Box 70250
Oakland, CA 94612-0250
(408) 255-8001